

**Land Value Taxation in Indiana:
Challenges and Issues**

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and Thomas Hamilton
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**Lincoln Institute of Land Policy
Working Paper**

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Lincoln Institute Product Code: WP00JW1

Abstract

In 1998, the Indiana State Supreme Court ruled that the state's real estate manual violated the state constitution because it was too subjective, lacked meaningful reference to property wealth, and failed to provide uniformity and equity. Though two years have passed since this landmark decision, Indiana policy makers have made minimal progress in the implementation of a more equitable and uniform property tax assessment system. Policy makers have focused almost exclusively on the projected tax burden shifts, especially those to homeowners, under a market-derived assessment system, and have all but ignored the underlying inequities that have plagued Indiana's assessment system for years. Most notable is the underassessment of land, especially residential land, which has resulted in significant tax burden shifts. This working paper documents problems associated with the state's land valuation methods and procedures, along with several other issues that must accompany Indiana's assessment reform efforts.

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Land Value Taxation in Indiana: Challenges and Issues

Introduction

The property tax system in Indiana has long generated considerable public policy debate on both a practical and theoretical basis. The practical debate has largely centered on the real property assessment standard used in Indiana. Whereas most states have long used some form of market value as the assessment standard, Indiana relies on a standard (“true tax value or TTV”) there bears no resemblance to market value. In fact, current Indiana law explicitly states that true tax value “does not mean fair market value.”¹

While the theoretical debate has taken several forms over the years, the predominate issue has been whether the true tax value system satisfies the constitutional requirements of a uniform, equal, and just property tax system. More specifically, the debate has focused on whether such a system can provide and measure equity, both within and between property classes, as the system derives value by ignoring the market.

In 1998, the debate over Indiana’s assessment standards heightened when the Indiana State Supreme Court ruled that the state’s real property assessment manuals were unconstitutional. More specifically, the Court ruled that the cost and depreciation schedules in the assessment manuals were too “subjective” and “lacked meaningful reference to property wealth.” Consequently, the application of such schedules resulted in “significant deviations from substantial uniformity and equality,” thus violating the state’s constitution.²

While the Court found the assessment manual unconstitutional, it did not mandate an assessment system based on market value. Rather, the Court ruled that Indiana’s true tax value assessment system could consider market value data and that any departure from market value must result in assessments that are “substantially uniform and equal based on property wealth.” It should be noted, however, that this landmark decision only involved the assessment of improved real property. In fact, the Court upheld current Indiana law that provides for the market value assessment of land.

As this lawsuit worked its way through the state’s court system, the Indiana General Assembly summoned a study to determine the impact of converting from the current assessment system to one derived from market data. In short, this study found that moving to a market-derived assessment system would result in significant tax burden shifts from business taxpayers to homeowners.

Since the Court decision and release of the study’s findings, two interrelated issues have consumed policymakers in Indiana. First, a great deal of attention has been given to the development of a new, real property assessment manual that complies with constitutional

¹ Indiana Code 6-1.1-31-6.

² *State Board of Tax Commissioners v. Town of St. John* (702 N.E.2d at 1042).

requirements for a uniform, equal, and just assessment system. As the state Supreme Court cited the current manual's failure to incorporate "objectively verifiable" data, policymakers initially focused on the adoption of cost schedules prescribed by national valuation service companies (i.e., Marshall & Swift and Boeckh).

The second issue, which has become the focal point of property tax and assessment reform efforts, involves the projected tax shift from business taxpayers to homeowners resulting from a market-derived cost approach to value. The average projected residential tax shifts, as high as thirty percent (30%) in one scenario, have captured the attention of lawmakers, regardless of political party or ideology.³ Rather than extending or adopting property tax policies to mitigate these shifts, however, policymakers have once again turned to the assessment manuals to provide tax relief to homeowners. It remains to be seen whether the state courts will permit this practice to continue.

As these two issues have consumed policy makers for nearly two years, the widespread, underlying problems with the state's assessment system have been ignored. In particular, the practice of land valuation, especially residential land, is most problematic. Despite the current market value standard for land assessments, market data indicates that land values for all property classes are further from market values and less uniform than are real estate improvements and personal property. This is especially troubling in that the TTV of improvements and personal property relies on cost and depreciation schedules that are significantly less than the market.

Since the assessment standard for land is significantly different than that for other property types, land valuation practices are especially critical in Indiana. This is primarily due to the fact that Indiana imposes a property tax on personal property, which accounts for more than thirty percent (30%) of total property tax payments. Consequently, poor land valuation practices result in a tax shift not only to real estate improvements, but personal property taxpayers as well.

This working paper is organized as follows. This section introduces the impetus for Indiana's current assessment reform efforts. The next page begins the second section that provides an overview of the essential features of Indiana's property tax and assessment systems, including its legal framework, role of the property tax in the state's revenue structure, current assessment standards and the assessment cycle. Section Three, "Summary of Recent Reform Efforts," examines the recent executive and legislative assessment reform efforts. The intricacies of the state's land valuation methods and procedures is reviewed in the fourth section. The fifth section, "Land Value Ratio Study" summarizes the findings of our land assessment-sales ratio study for residential property, with discussion on the tax burden shifts arising from the state's land valuation practices. The paper concludes with a review of the various issues, including land valuation, which must be addressed to assure an equitable assessment system.

³ State Board of Tax Commissioners, *Final Report of the Fair Market Value Study*, Chapter 5, page 31.

Overview of Indiana’s Property Tax and Assessment Systems

Legal Framework

In order to understand the intricacies of Indiana’s property tax and assessment systems, it is important to first consider the broad, legal framework within which these interrelated systems operate. At the center of this framework is Article 10, Section 1, of the Indiana Constitution which reads:

The [Indiana] General Assembly shall provide, by law, for a uniform and equal rate of property assessment and taxation and shall prescribe regulations to secure a just valuation for taxation of all property, both real and personal.⁴

Adopted in 1851, this constitutional provision has served as the cornerstone of Indiana’s property tax and assessment systems for nearly 150 years. Surprisingly, until the Indiana State Supreme Court’s 1998 landmark decision in *Town of St. John* (see page 13), no case had reached the state’s highest court to determine whether the state’s valuation methods met the constitutional requirements for a uniform, equal, and just assessment system.

In addition to the state constitution, several statutory provisions complete the legal framework of Indiana’s property tax and assessment systems. As **Table 1** illustrates, the most significant statutory provisions are found in Title 6 of Indiana Code, including the description of true tax value, delegation of state oversight to the State Tax Board, assessment procedures, deductions and credits, assessor training, and several additional provisions.

Table 1: Indiana Code Citations

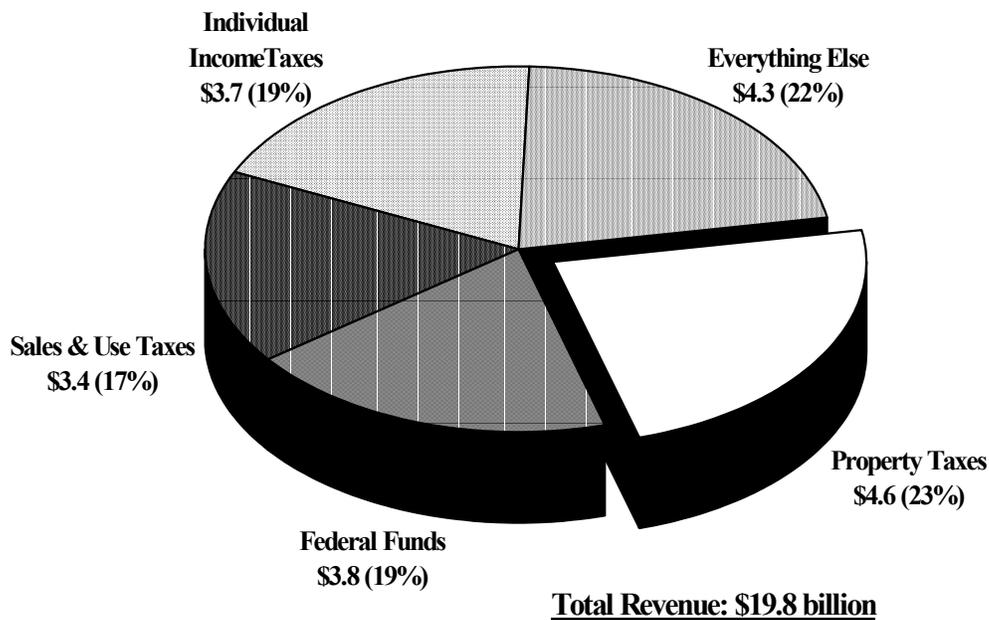
| | |
|----------|--------------------------------------------------|
| 6-1.1-1 | General Rules |
| 6-1.1-2 | Imposition of Tax |
| 6-1.1-3 | Personal Property Assessment Procedures |
| 6-1.1-4 | Real Property Assessment Procedures |
| 6-1.1-5 | Real Property Assessment Records |
| 6-1.1-6 | Assessment of Various Classified Land Types |
| 6-1.1-7 | Taxation of Mobile Homes |
| 6-1.1-8 | Taxation of Public Utilities |
| 6-1.1-10 | Exemptions |
| 6-1.1-12 | Assessed Value Deductions |
| 6-1.1-13 | Local Appeals Process |
| 6-1.1-14 | Appeals to the State Tax Board |
| 6-1.1-17 | Local Budgetary Procedures |
| 6-1.1-18 | Tax Controls |
| 6-1.1-22 | Procedures to Collect the Property Tax |
| 6-1.1-31 | State Tax Board Rules |
| 6-1.1-35 | Supervision and Training of Assessment Officials |

⁴ Constitution of the State of Indiana, Article 10, Section 1.

Property Tax Revenues

In 1999, the property tax generated more than \$4.6 billion, nearly all of it generated locally and used for local services, especially K-12 public education. As **Figure 1** illustrates, the property tax is the largest revenue source in Indiana, generating more revenue in 1999 than federal funds (\$3.8 billion), individual income taxes (\$3.7 billion),

Figure 1
Total State & Local Revenue
State of Indiana, 1999
(dollars in billions)

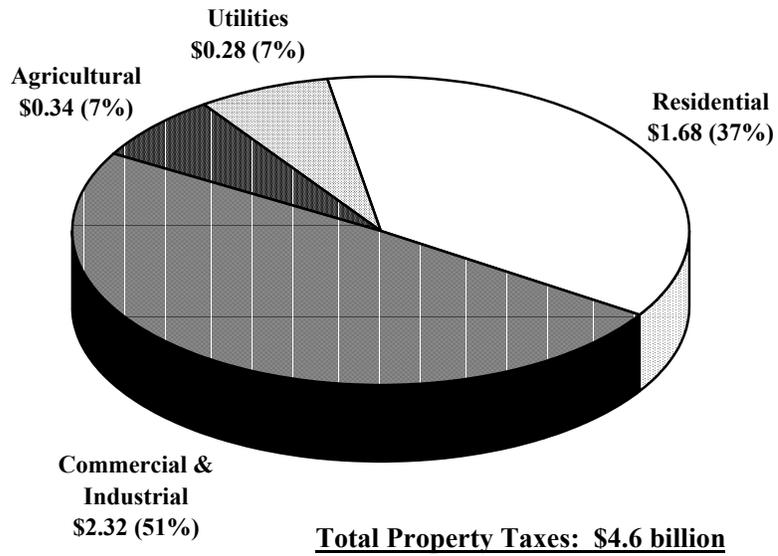


Source: State Board of Tax Commissioners and Indiana State Budget Agency.

and sales and use taxes (\$3.4 billion). Together, these four revenue sources account for nearly 80 percent of total state and local revenue.

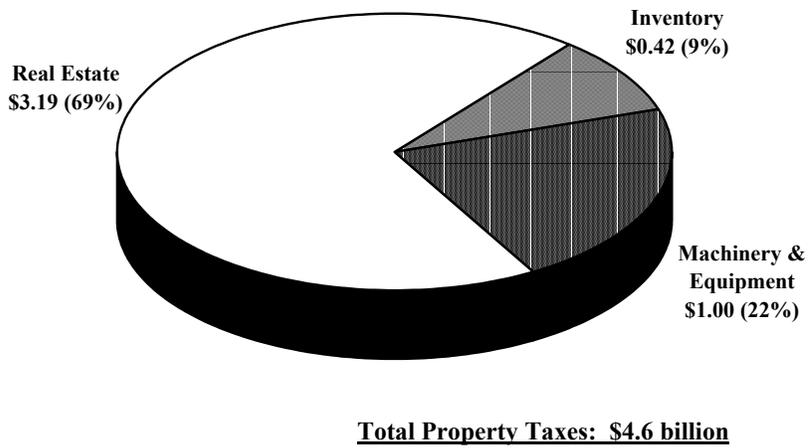
As **Figure 2** illustrates, nearly 65 percent of the total property tax levy was paid by businesses (commercial, industrial, utility, and agricultural property) in 1999. Personal property accounts for about one-half of the total business property tax burden (see **Figure 3**). Although Indiana's constitution prohibits unequal property taxation, this relatively high business share demonstrates a de facto classification system that allocates a majority of the property tax burden to non-voting entities.

Figure 2
Property Tax Payments, by Property Class
State of Indiana, 1999
(dollars in billions)



Source: State Board of Tax Commissioners.

Figure 3
Real v. Personal Property Tax Payments
State of Indiana, 1999
(dollars in billions)



Source: State Board of Tax Commissioners.

Property Tax and Assessment Administration

The administrative structure of Indiana's property tax and assessment systems is largely a product of the Northwest Territory. Like Ohio, Michigan, Illinois, and Wisconsin, Indiana's land area was originally divided into counties and townships. This division of counties into township continues to play a critical role in several local governmental functions, especially property assessments.

Local Administration

The primary assessing jurisdiction in Indiana is the township. Each of the state's 1,008 townships elects either a full- or part-time assessor to four-year terms. In 1999, 841 part-time assessors (often referred to as township-trustee assessors) performed the assessing function. In the remaining 167 townships, full-time assessors are separately elected.⁵ See **Appendix A** for a county-by-county breakdown of full- and part-time township assessors.

A township's population size determines whether a full- or part-time township assessor is required. Townships with a population greater than 8,000 elect a full-time assessor. A township with a population greater than 5,000 but less than 8,000 has the option of electing a full-time assessor. Townships with a population less than 5,000 elect a part-time assessor.⁶

Each of the state's ninety-two (92) counties also elects a county assessor to a four-year term. As a general rule, the county assessor has a greater role when townships have more part-time assessors, because the county assessor reviews both personal property and real estate assessments.

In addition to assessors, each county has a property tax assessment board of appeals. This five-member board is primarily responsible for hearing local taxpayer appeals. The board consists of the county assessor, two individuals appointed by the county fiscal body, and two individuals appointed by the county board of commissioners. No more than three of the five members may be of the same political party.

Private Appraisal Firms

As an alternative to "in-house" real estate appraisals, counties and townships throughout the state often contract with professional appraisal firms. This outsourcing of assessment duties, which usually accompanies the general reassessment of real property, ranges from data collection and data processing to mapping and valuation of improvements and land. The obvious benefits of such firms are that they allow counties and townships to quickly

⁵ State Board of Tax Commissioners, *97th January Assessors' Conference Directory*.

⁶ Indiana Code 36-6-5-1.

access professionals and resources, maintain a modest staff, and budget for reassessment on a periodic basis.⁷

Relying on professional appraisal firms also has a downside, as they make local assessors dependent on these outside services. Consequently, county and township assessors are less likely to develop the necessary skills and expertise to conduct their own appraisals. This is especially true in situations where private firms both conduct the reassessment and defend their assessments in the appeals process.

During the 1995 reassessment, at least sixty-four (64) of the ninety-two (92) counties, or seventy percent (70%), contracted with private appraisal firms. Of this amount, thirty-nine (39) counties contracted with firms to assess real estate improvements for all property classes (residential, agricultural, commercial and industrial) and the remaining twenty-five (25) counties relied on such firms primarily for commercial or industrial improvements, or both.⁸

State Administration

As previously mentioned, the State Board of Tax Commissioners (“State Tax Board”), the first property tax commission of its kind in the nation, is responsible for overseeing the state’s property tax and assessment systems. The State Tax Board consists of three commissioners, each appointed by the Governor to four-year terms. No more than two of the commissioners can be of the same political party. Currently, there are no assessment or appraisal qualifications required to serve as commissioner.

As directed by the Indiana General Assembly, the prime responsibility of the State Tax Board is the promulgation of assessment rules and regulations for both real and personal property. Additionally, the Tax Board hears property tax appeals, approves local government budgets, provides assessor training, and maintains a comprehensive local government database.

Assessor Certification and Training

There are two certifications available to assessors in Indiana. The Level I assessor-appraiser certification can best be described as a basic designation, representing a minimal level of understanding of Indiana assessment methodologies and techniques. In preparing for the Level I examination, which is designed and conducted by the State Tax Board, emphasis is largely placed on the application of the state’s real estate manual to residential property. Prior to taking the Level I examination, applicants are required to complete six (6) hours of pre-examination course work designated by the State Tax Board.

⁷ Indiana Fiscal Policy Institute, *Property Tax Assessment in Indiana: A Program of Reform*, p.8.

⁸ State Board of Tax Commissioners, *1995 Reassessment Activity by Township*.

Certified Level II assessor-appraisers typically have a more thorough understanding of the state’s real estate manual, particularly as it applies to commercial and industrial properties. In addition to completing six (6) hours of pre-examination course work, those seeking their Level II certification must be a certified Level I assessor.

In order to remain certified, Level I and Level II assessor-appraisers must complete a minimum number of continuing education hours over a two-year period (see **Appendix B**). Once fully implemented, Level I assessor-appraisers must attend thirty (30) hours of continuing education, fifteen (15) of which must be tested, while Level II assessor-appraisers must attend forty-five (45) hours, with twenty-two (22) tested hours.

As **Table 2** illustrates, less than one-third of the 1,100 locally elected assessors are a certified Level I or II assessor-appraiser. This is somewhat misleading as eighty-three (83) of the ninety-two (92) county assessors (90%) are certified Level I or Level II assessor-appraisers. The statewide percentage of certified assessors is driven down by township assessors, especially part-time township assessors, with only 269 of the 1,008 township assessors (27%) certified.

**Table 2: Certified Level I & II Assessor-Appraisers
County, Full-Time Township & Part-Time Assessors
State of Indiana, 2000**

| Assessor Type | Certified Assessors | | | Eligible Assessors | % Certified |
|--------------------|---------------------|------------|------------|--------------------|--------------|
| | Level I | Level II | Total | | |
| County | 17 | 66 | 83 | 92 | 90.2% |
| Full-Time Township | 33 | 95 | 128 | 167 | 76.6% |
| Part-Time Township | 85 | 56 | 141 | 841 | 16.8% |
| Total | 135 | 217 | 352 | 1100 | 32.0% |

Source: State Board of Tax Commissioners

It should be noted that locally elected assessors are not required under Indiana law to be certified assessors prior to and after election into office. As provided in Indiana Code:

Each county assessor and each elected assessor [full-time township assessor] must be a certified “level 2” assessor-appraiser...or employ at least one (1) certified “level 2” assessor-appraiser. Each elected county assessor, township assessor, or elected trustee-assessor [part-time township assessor] is expected to attain the certification of a “level one” assessor-appraiser.⁹

Similarly, private appraisal firms that are hired by a county to conduct all or part of the general reassessment must employ at least one Level II assessor-appraiser. The staff of

⁹ Indiana Code 6-1.1-35-1.1.

these firms that perform the actual fieldwork (including data collection, assignment of grade, condition, depreciation, etc.) is not subject to any state certification requirements.

Current Assessment Standards

The statutory standard of property value in Indiana is “true tax value” (TTV), with assessments based on one-third of TTV. However, there is no definition of TTV under current Indiana law. Rather, Indiana law provides that TTV “does not mean fair market value” and that it “is the value determined under the rules of the state board of tax commissioners.”¹⁰ In short, the Indiana General Assembly has restricted the State Tax Board from using market value as the assessment standard and permitted it to define TTV as whatever the State Tax Board says it is.

Though not specifically defined by the State Tax Board, the TTV of real and personal property is derived by the application of the mechanical rules, cost tables, depreciation schedules, and formulas in both the Real Property Assessment Manual (Regulation 17) and Personal Property Assessment Manual (Regulation 16).

Real Property—Improvements

For purposes of valuing improved real property (i.e. buildings, pavement, fencing, etc.), Regulation 17 relies exclusively on a cost method for all types of improvements. Again, it should be emphasized that the cost tables used in Indiana’s real estate manual do not reflect market costs.

Once the cost tables have been applied to improved real property, assessors have as many as three subjective features to apply to each improvement in determining TTV. These features include, grade, condition, and neighborhood desirability.

1. *Grade*: The grade classifications in Regulation 17 are based on certain construction specifications and quality of materials and workmanship.¹¹ The real estate manual provides five general grades for all improvements, ranging from “A” to “E”, with “A” representing the highest grade and “C” representing average grade. Because structures often fall between these general grades, the real estate manual provides a plus/minus system for gradations between categories.

Though the manual provides photographs of typical structures for each grade, the selection of the proper grade relies on the judgement of the assessor.¹² As a practical matter, since local assessors rarely have access to construction specifications and materials, grades are typically based solely on exterior viewing.

¹⁰ Indiana Code 6-1.1-31-6.

¹¹ Real Property Assessment Manual, Rule 1, page 5.

¹² Real Property Assessment Manual, Rule 7, page 12

2. *Condition*: The assessor is also responsible for determining the condition of each structure. It is a “judgement of the physical condition of the structure relative to its (actual) age.” While the assessor does not have to determine the structure’s effective age, he must rate the condition relative to other structures of that age. Again, assessor judgement is paramount.¹³
3. *Neighborhood Desirability*: For residential and agricultural homesites, the assessor assigns a rating to the general area. This is a “composite judgement of the overall desirability based on the condition of agreeable living and the extent of residential benefits arising from the location of the dwelling.” This rating can vary between excellent and very poor, with average representing the median.¹⁴

In calculating residential and agricultural homesite depreciation, the condition rating is combined with the neighborhood desirability factor in a matrix along with the structure’s actual age. All else constant, a structure judged to be in better condition receives less depreciation. Likewise, less depreciation is assigned if the neighborhood is judged more favorably. It should be noted that the use of actual age rather than effective age is yet another example of true tax value’s departure from market value concepts.

Commercial and industrial depreciation combines the typical life expectancy of each structure, condition, and actual age. Like residential depreciation, commercial and industrial structures assigned better condition ratings receive less depreciation.

Overall, the final assessments generated with Indiana’s cost approach are generally well below actual reproduction costs and vary widely between property classes (i.e., residential, business, utility, and agricultural). Tangential and anecdotal information indicates that in the past, these cost schedules bore a greater resemblance to standard, market-derived schedules. However, a series of specific interventions directed at certain property classes has created what appear to be random and unrealistic valuations.

Within property classes, there is an obvious potential for irregularities associated with such great reliance on assessor judgment. Apart from such issues, a percentage comparison of assessed value to market value can vary widely for individual properties as market value information enters the process in a covert, indirect manner.

As Indiana’s cost approach clearly deviates from traditional market-derived cost approaches, it comes as no surprise that the TTV of improved real property is well below actual market value and varies widely between and within property classes. The use of modified cost tables, combined with an arbitrary approach to depreciation, explains a significant portion of these differences.

¹³ Real Property Assessment Manual, Rule 7, page 20.

¹⁴ Real Property Assessment Manual, Rule 7, page 21.

Real Property—Land

Unlike the TTV of real estate improvements and personal property, the TTV of land in Indiana is based on its market value. For non-agricultural land, current values were determined at the county-level by the county land valuation commission.¹⁵ Despite several available methods of land valuation, the state's real estate manual only provides for the use of either the sales comparison or abstraction methods. Moreover, it should be noted that less than one page in the manual is devoted to the valuation methods to be used by the county land commissions.¹⁶

The current TTV of agricultural land begins with a base value of \$495 per acre. This base value is subsequently adjusted by a soil productivity or yield index. This index is based on the physical properties of the soil such as slope, moisture holding capacity, natural drainage class, amount of remaining surface soil, and various other factors. The best soil in the state has a productivity factor 1.28, while the poorest soil has a factor of 0.50. In other words, the current TTV of agricultural land ranges from \$248 to \$634 per acre.

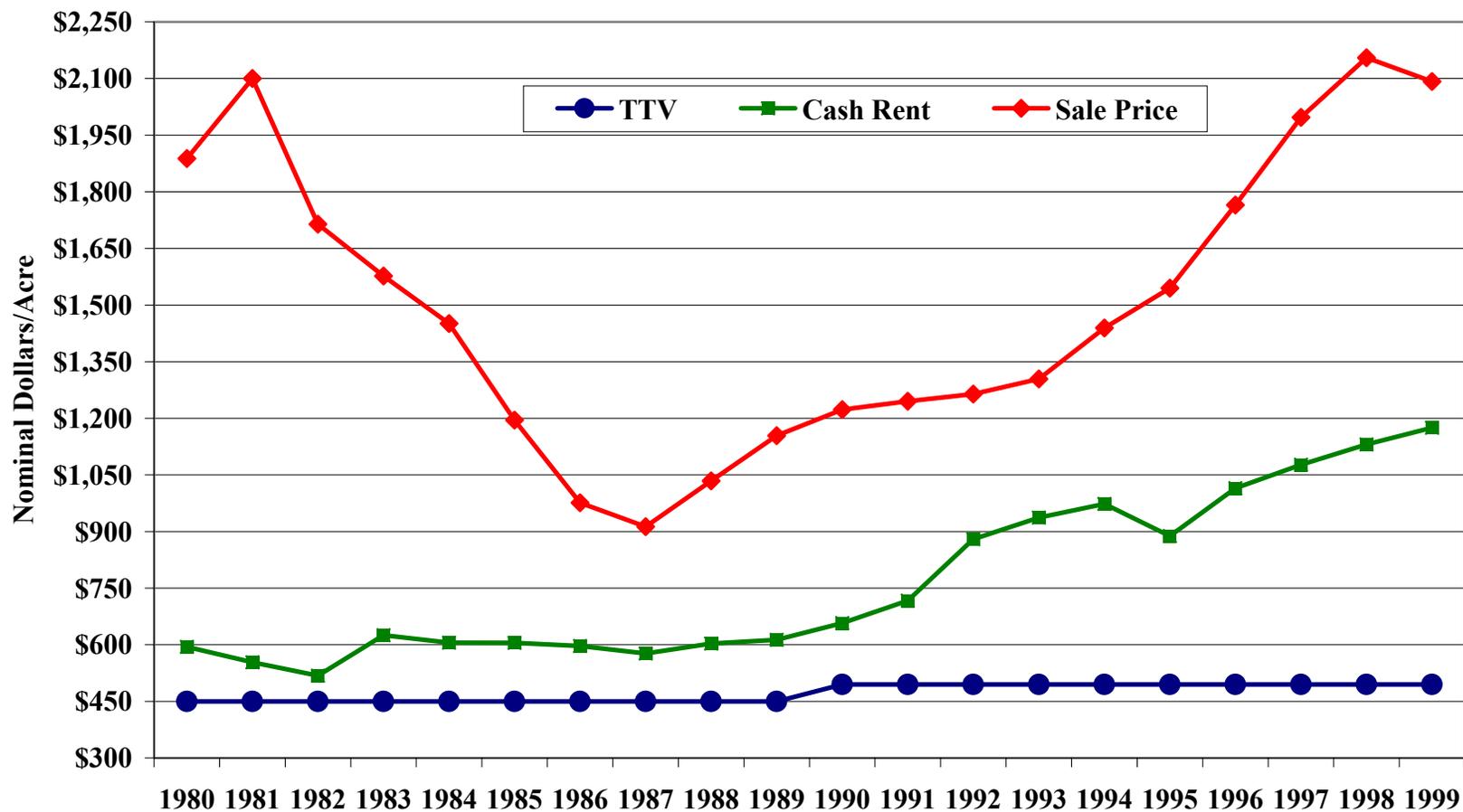
Figure 4 calls into question the base value, as two common market indicators (cash rent and sales of agricultural land for farming) of agricultural land greatly exceed the current TTV of farmland.¹⁷ In fact, since 1991, such indicators have exceeded the highest possible TTV of agricultural land (\$634 per acre). Since the state does not explicitly provide for the preferential treatment of agricultural land, policy makers have been able to minimize the property tax burdens of farmers by clearly underassessing agricultural land.

¹⁵ As detailed on page __, county land valuation commissions were eliminated by the Indiana General Assembly in 1997. Township assessors will determine nonagricultural land values in the next general reassessment.

¹⁶ Real Estate Assessment Manual, Rule 4, page 4.

¹⁷ Purdue Agricultural Economics Report, *Indiana Land Values Rise*, pages 1-6.

Figure 4
TTV, Net Cash Rent, & Sales Price, Agricultural Land
State of Indiana, 1980 to 1999



Source: Purdue University Land Values Survey; State Board of Tax Commissioners.

Personal Property

The TTV of personal property starts with original cost or market information. Much like the TTV of real property improvements, however, personal property assessment methods in Indiana rely on depreciation schedules that bear little relationship to the market. Most business assets receive accelerated depreciation of 40 to 60 percent in the first few years. However, older assets are subject to a relatively high residual value of 30 percent of original cost. Business inventory also is based on its original cost and is subject to the same floor, but it receives a 35 percent assessment deduction.¹⁸

Assessment Cycle

Indiana employs two different assessment cycles. Personal property is self-assessed annually, while real property reassessment is both infrequent and irregular. The last general reassessment of real property took effect in March 1995. These same real estate assessments will remain until the effective date of the next general reassessment, which is scheduled for March 2002. The previous general reassessment occurred in 1989 and reassessments generally took effect every ten (10) years before then.

It should be noted that the 1989 Indiana General Assembly enacted legislation that shortened the reassessment cycle to six years and then each fourth year thereafter. While lawmakers adhered to this schedule with the 1995 reassessment, the scheduled 1999 general reassessment has been delayed for at least three more years.

Summary of Recent Assessment Reform

Background

Major state reform efforts, whether in welfare programs, school funding or tax policy, tend to be driven by either fiscal distress or judicial mandates. As is often the case, however, the political process dictates the speed of reform. This same pattern holds true for tax reform to achieve a more equitable and uniform assessment system in Indiana, as policy makers have been slow to respond to judicial mandates.

The judicial mandate driving Indiana's property tax and assessment reform efforts stems from the State Supreme Court's 1998 decision in *State Board of Tax Commissioners v. Town of St. John*. In this case, the Supreme Court affirmed the state Tax Court's decision that the 1995 real property assessment manual violated the state constitution. In particular, the Court found that the constitutional requirements for a uniform and equal assessment system were not met because the state's manual was arbitrary and did not include "objectively verifiable" data. Unlike the Tax Court, however, the Supreme Court did not mandate a strict market value system. Rather, it ruled that any departures from

¹⁸ Personal Property Assessment Manual.

market value must result in assessments that are substantially uniform and equal based on property wealth.

Because executive and legislative policy makers have been slow to respond to this mandate, the Tax Court has become increasingly assertive in the pursuit of an equitable assessment system. In May 2000, the Tax Court established specific dates for both the adoption (June 2001) and implementation (March 2002) of constitutional assessment regulations. Further, it required the Tax Board to submit monthly progress reports and announced that an independent reassessment commissioner would be appointed if the Tax Board's efforts were "deficient in any meaningful way."

Executive Reform Efforts

To carry out its duty to ensure uniformity and equality of property assessment and taxation, the Indiana General Assembly has delegated the development and oversight of the state's assessment system to the State Tax Board, an executive agency under the governor. This agency has the unenviable task of creating a new assessment system that will likely cause considerable shifts in tax burdens. Delays have further politicized this process, as assessment reform and tax burden shifts have become the focus of the November 2000 general election.

The Tax Board has taken steps to comply with the Supreme Court decision. The Board's 1999 proposed real property assessment manual incorporated market-derived cost tables for all property classes. Residential depreciation schedules also were based on the market, and the base value of agricultural land was increased from \$495 to \$1,050 an acre.

Unfortunately, other actions by the Tax Board and the inaction of the executive branch may have offset these improvements. For example, the proposed manual provided a residential assessment reduction, or shelter allowance. The Tax Board argued that basic shelter is not property wealth, since other assets cannot substitute for shelter. A shelter allowance was calculated for each county, ranging in value between \$16,000 and \$22,686, to be deducted from residential property assessments.¹⁹ This unique valuation method would reduce the predicted residential tax shift from 33 to 7 percent and could be considered a form of classification. Viewing this shift as unacceptable, the governor did not approve the proposed 2001 real estate manual, illustrating the highly politicized nature of assessment reform.

Legislative Reform Efforts

Anticipating a major court decision, the 1997 Indiana General Assembly enacted legislation that many considered the first step toward significant assessment reform. It increased training requirements for assessors, improved the local and state appeals process, and required the state to establish level of assessment and uniformity standards

¹⁹ State Board of Tax Commissioners, *The Projected Fiscal Impact of the 2001 Reassessment*, page 11.

and to conduct equalization studies. Again, these improvements may have been offset by other legislative initiatives. The 1997 legislation allows township assessors to establish land values, an authority that previously rested with county land commissions. Current data indicates that these township land values are far from market values, and it is unlikely that the large number of part-time township assessors can establish more accurate land values in the future.

The recently enacted equalization legislation is also problematic. Most states equalize assessments in the first year that reassessment takes effect, to provide immediate mitigation for unequal assessment levels. Current Indiana law delays equalization for at least two years following the effective date of reassessment.

Assessment Procedures and Research on Indiana Land Values

Overview

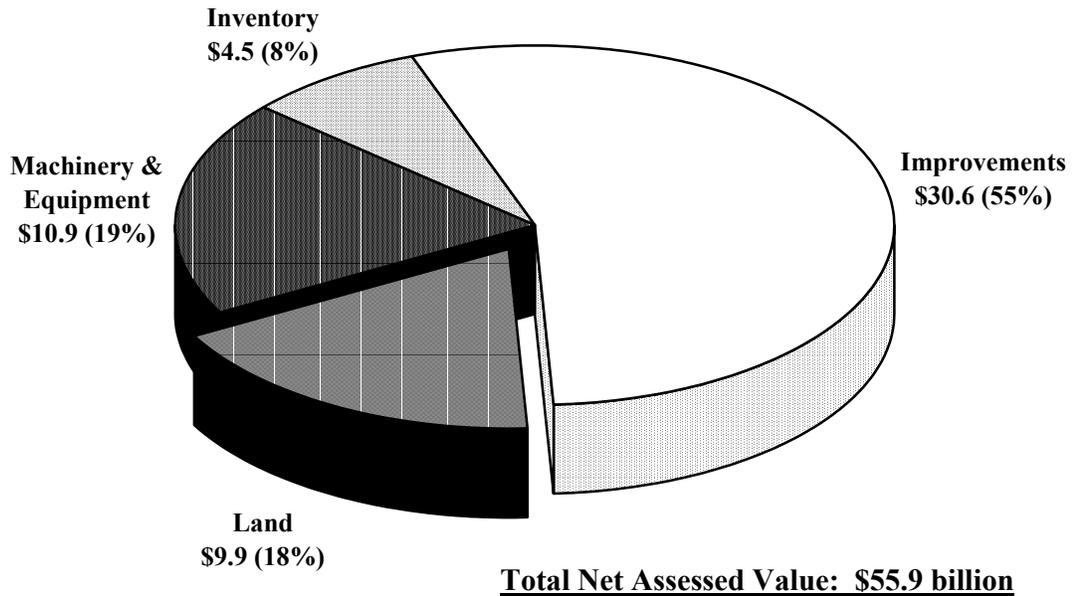
Land values are especially important to the underlying property tax base in Indiana for at least two reasons. First, land and improvements are separately assessed using extremely different assessment methods. As previously discussed, land is to be assessed at its market value, while improvements are valued on a cost approach that is not based on the market. Second, unlike most states, personal property (primarily business machinery, equipment, and inventory) is subject to the property tax. This unique combination drives the distribution of the property tax burden in Indiana.

As **Figure 5** illustrates, the state's total net assessed value was \$55.9 billion in 1999.²⁰ Of this amount, improvements to land accounted for fifty-four percent (55%) of the total, personal property was twenty-eight percent (27%), and land accounted for the remaining eighteen percent (18%).

The reliance in Indiana on land values raises two significant issues. Is land properly assessed? If not, what impact does its underassessment have on the property tax base? Some basic comparative measures question the relationship between current land assessments and market values. Land has been a very stable component of the property tax base in percentage terms. Since 1985, land assessments have constituted 16-17% of the state's total gross assessed value (see **Figures 6 & 7**). This is a slightly smaller percentage than of the previously mentioned net assessed values, as land receives relatively few exemptions and deductions. Given Indiana's cost methodology for assessing improvements, and the infrequency of reassessments or changes to this basis, such data may not be surprising.

²⁰ Net assessed value is the gross assessed value less exemptions and deductions. Assessed value is one-third of true tax value.

Figure 5
Real & Personal Property Net Assessed Values
State of Indiana, 1999
(dollars in billions)



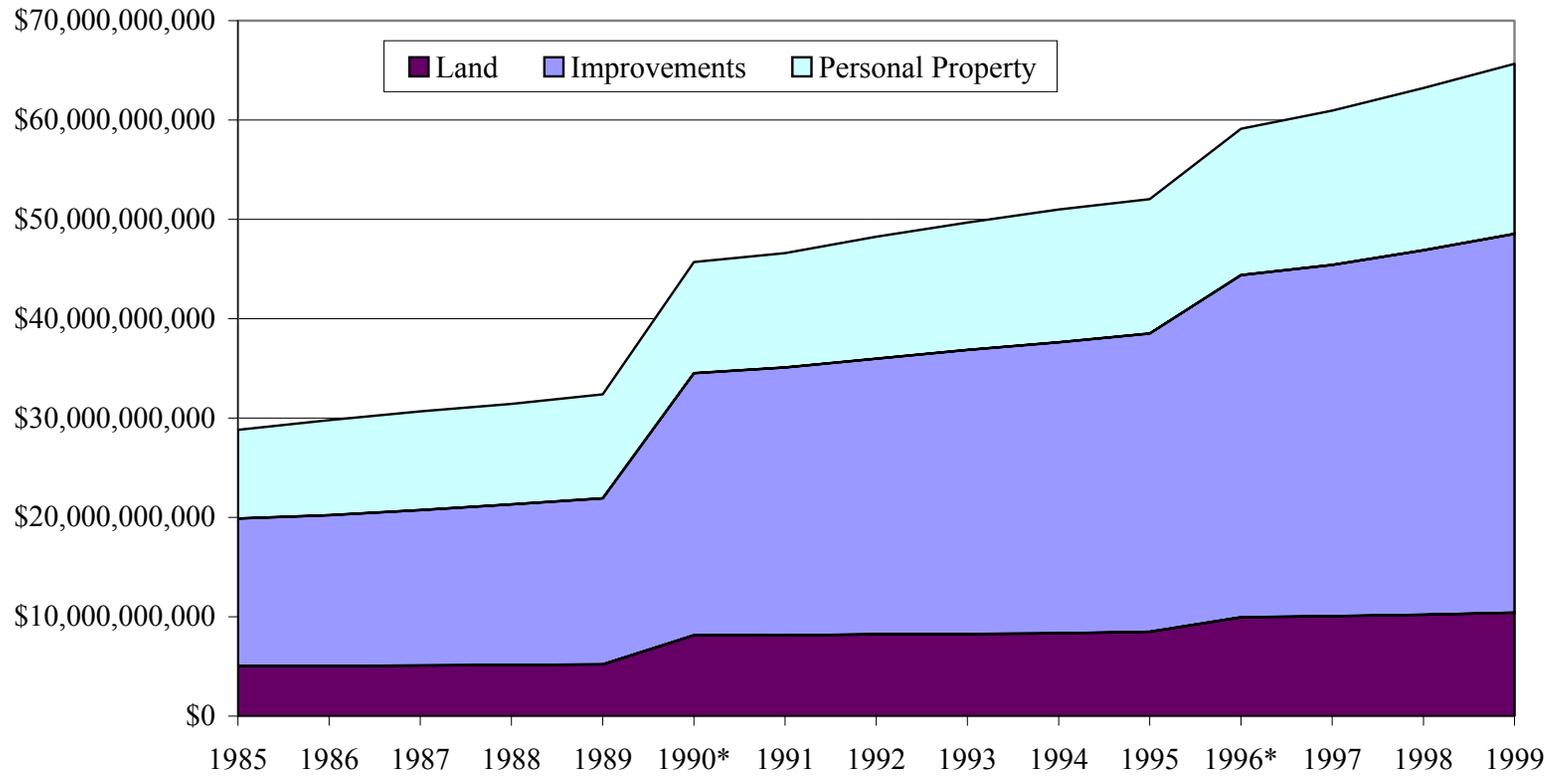
Source: State Board of Tax Commissioners.

Despite the importance of land as a key part of the property tax picture, and in spite of the commonly available data cited above, land has received little inquiry or comment in the property tax debate. Policymakers do not target changes in land assessment as a business attraction device, as frequently done with personal property. The judiciary has only briefly mentioned agricultural land assessments, failing to address even more extensive problems in land assessments for other property classes. It is not an overstatement to conclude that land valuations and assessments have been virtually ignored.

Land Assessment Procedures

The government entity charged with overseeing Indiana’s property tax and assessment systems, including current land values, is the State Tax Board. While the State Tax Board has been ultimately responsible for land values, two other entities are directly involved in the establishment of land values, including county land valuation commissions and the agricultural advisory council.

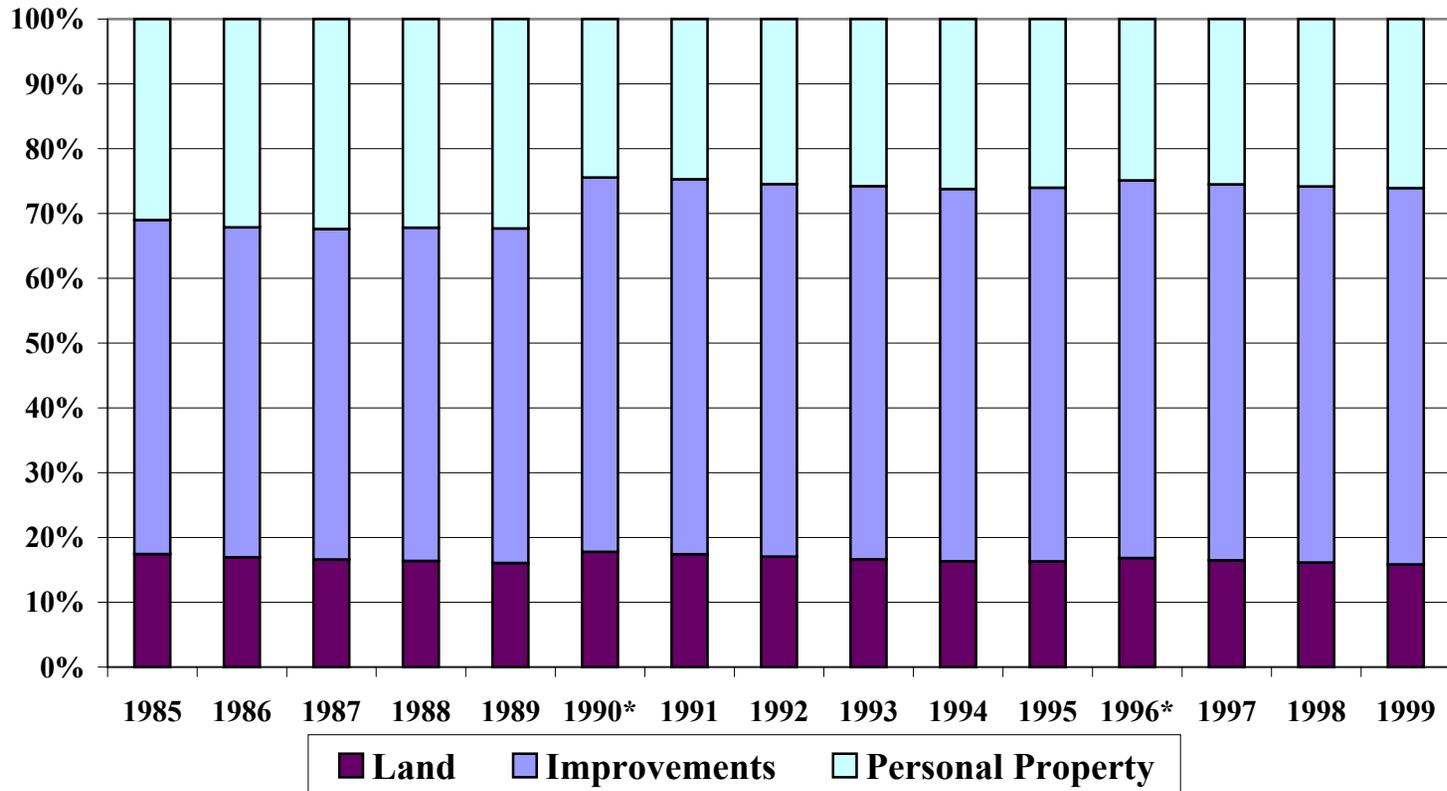
Figure 6
Gross Assessed Values, Land, Improvements, & Personal Property
State of Indiana, 1985 to 1999



*Real Property Reassessment Effective Years.

Source: County Auditor Abstracts.

Figure 7
Shares of Gross AV, Land, Improvements, & Personal Property
State of Indiana, 1985 to 1999



*Real Property Reassessment Effective Years.
 Source: County Auditor Abstracts.

County Land Valuation Commissions

Each county land valuation commission established each county's current, nonagricultural land values. This nine-member commission included:

1. county assessor;
2. one township assessor appointed by a majority of the township assessors;
3. one township assessor appointed by the county executive;
4. one licensed realtor or broker;
5. one banker;
6. one agricultural landowner, appointed by the county executive;
7. one commercial landowner, appointed by the county executive;
8. one industrial landowner, appointed by the county executive; and
9. one residential landowner, appointed by the county executive.²¹

Each county land commission was responsible for developing the county's land order, which identified values at the neighborhood level. The State Tax Board was subsequently responsible for reviewing, modifying, and approving each county's land order, both within and between counties. It should be noted that over the last two general reassessments, the State Tax Board rarely modified land orders.

In 1997, the Indiana General Assembly made significant changes to the land valuation process for nonagricultural land.²² It eliminated county land commissions, and, beginning with the next general reassessment of real property, transferred this responsibility to township assessors. In other words, 1,008 township assessors will establish land values, more than 800 of which are part-time assessors, in 2002. This legislation also transferred the responsibilities of reviewing, modifying, and approving local land values from the State Tax Board to the county property tax assessment board of appeals, thus eliminating any state oversight in the establishment of nonagricultural land values.

A caveat to this process that applies to current and may apply to future land values involves the assignment of values. For example, for the 1995 reassessment, county land commissions established land values as of 1991. There are at least two reasons for this time lag. First, it was intended to give county land commissions sufficient time to collect, analyze and compare data in and between neighborhoods, townships and counties. Second, it was argued that 1991 would also serve as the base for improvement costs.

²¹ Real Property Assessment Manual, Rule 4, page 3.

²² House Enrolled Act 1783 (1997).

Agricultural Advisory Council

As Indiana utilizes a base value approach to agricultural land values, the state is responsible for establishing the starting point for all agricultural values. On a parcel-by-parcel basis, this base value may subsequently be increased or decreased based on the productivity of the soil. Detailed soil maps established by the United States Department of Agriculture help define the soil's productivity.

In establishing the base value of agricultural land, the State Tax Board has relied on the governor-appointed agricultural advisory council, an eleven-member body that includes:

1. one agricultural property owner;
2. one commercial property owner;
3. one residential property owner;
4. one full-time township assessor;
5. one part-time township assessor;
6. one county assessor;
7. one representative from a farmers' organization;
8. one member of the state senate;
9. one member of the house of representatives;
10. one representative from the United States Department of Agriculture; and
11. one employee of a state university with expertise in agricultural sciences.²²

This council meets to consider these values, other pertinent information and ultimately suggests a common, statewide base rate to the State Tax Board. The Tax Board takes this value under advisement, but in the end establishes a base rate on its own accord.

Previous Research on Land Values

Until the early 1990s, comprehensive research into the relationship between true tax and market values, let alone tax burden shifts resulting from a market-derived assessment system, was virtually nonexistent. In many ways, there was no need to conduct such analysis, as Indiana law provided that TTV is not market value. Moreover, with assessed values falling well below market values, most taxpayers in Indiana viewed the true tax system as inherently "equitable." Of course, the creative approach taken in the true tax value system had not allowed taxpayers to measure equity either within or between property classes.

Legislative angst over the legal challenge of the state's assessment system in the *Town of St. John*, along with growing criticism over escalating property taxes, provided the impetus for the state's first comprehensive look at market value. In 1993, the Indiana General Assembly enacted legislation that directed the State Tax Board to conduct a study ("Market Value Study") that would examine the fiscal impact of moving to a market value assessment system. As part of this legislation, a handful of researchers at two Indiana universities were hired to conduct the study.

To provide market data for this study, the Indiana General Assembly also enacted legislation that created the state's first sales disclosure form in 1993. Using the information provided on these forms, researchers obtained sales data for all property classes in forty-seven (47) counties, including six (6) urban, thirteen (13) suburban, and twenty-eight (28) rural counties. Based on this data, suppositions were made concerning the market values of all property in the remaining forty-five (45) counties.

Naturally, sales data was most prevalent for improved, residential parcels. Vacant land sales were scarce, but a few counties reported a significant number of residential vacant land sales. The researchers developed multipliers required to adjust the 1995 assessments of land and/or improvements to the actual sales price.

As the projected tax burden shifts from the assessment-sales ratio study were dependent on several assessment and tax policy factors, nine (9) distinct scenarios were included in the study. Four general areas drove the differences between these scenarios:

1. *Agricultural Land Values*: Various agricultural base rates were used in each scenario, ranging from the current base of \$495 to \$1,130 per acre.
2. *Business Personal Property*: As current the state's current personal property regulations do not reflect the market, accelerated depreciation and the inventory exemption were eliminated. In addition, new personal property depreciation schedules were applied.
3. *Residential Assessment Deductions*: The various assessment deductions, including the homestead standard and mortgage deductions, were increased to offset the resulting increases in residential assessments.
4. *Property Tax Cuts*: Across the board tax cuts of twenty-two percent (22%) and thirty-seven percent (37%) were also included.

Though each scenario provided a valuable "snapshot" of what might occur at the county-level, the one that received the most attention from lawmakers and taxpayers was the "baseline" scenario, which projected tax shifts in the following manner:²³

- Residential Taxes: Thirty-three percent (33%) increase;
- Agricultural Taxes: Three percent (3%) increase;
- Utility Taxes: Twenty-nine percent (29%) decrease; and
- Commercial & Industrial Taxes: Eighteen percent (18%) decrease.

As these projections became the focus of the highly politicized debate over assessment reform, policy makers ignored the fact that this scenario was not even a market value scenario. For example, while real property was increased to market values, personal property assessments were not changed. In other words, the current practices of accelerated depreciation and inventory exemptions were included in the scenario. Given

²³ State Board of Tax Commissioners, "*Final Report of the Fair Market Value Study*," Chapter 5, page 12.

the state's heavy reliance on personal property, this omission is critical. Also, the base value of agricultural land was only increased to \$990 per acre, significantly less than its true market value.²⁴ Unfortunately, the failure of policy makers to fully understand this scenario has clouded the assessment reform effort.

Aside from this issue and buried in the final Market Value Study, is perhaps the most significant finding that received no attention: 1995 land assessments in Indiana were further away from market value than were assessments on improved real property and personal property. Statewide and across all types of property, improvements were undervalued by approximately thirty percent (30%) as compared to the market, whereas land was undervalued by approximately seventy percent (70%).

Clearly, various facets of moving to a market-derived assessment system require further examination. The data collected from sales disclosure forms is a concern, as no attempt is made by local assessors or the state to verify sales disclosure data. Buyers or sellers often report inaccurate figures for the property address, sale date or even more seriously, the sale price. While there is little monetary incentive to under or over-report sales prices, anecdotal information indicates that under-reporting often occurs.

Likewise, the Market Value Study reports sales of vacant land for each land type, but in most cases this land is in transition from agricultural use to another. This is particularly true in suburban areas of the state and the fringe land between urban and suburban areas. In Indiana, the true tax value of land developed for residential, commercial, and industrial purposes remains until the transaction to the new owner is complete. Thus, the TTV of most land in transition is \$495 per acre, even though its market value is significantly higher. This favorable assessment, often referred to as the "developer's discount," clearly distorts the ratio between the assessed value and sale price of vacant land.

Nevertheless, the Market Value Study does provide significant insight into the differences between land assessments and market value. While it might seem such inequities would be resolved through the legal process, disgruntled taxpayers have had a difficult task. Given that all land is generally under-assessed but to varying degrees, one can not compare individual assessments to market value. Appeals on land assessments are infrequent. No landowner can bring in sales information to challenge a land assessment, thus traditional appraisals are virtually worthless in regard to appeals. This situation has kept policymakers focused on assessments given to improvements.

Land Value Ratio Study

To update, improve and expand on the findings in the Market Value Study as it related to land values and assessments, we conducted a new assessment-sales ratio study based on more current edited and verified sales data in eighteen (18) counties throughout the state. One objective of our study was to select a diverse sample intended to represent different

²⁴ As illustrated in Figure 4 on page __, the value of agricultural property, especially farmland sold for farming purposes, is significantly greater than \$990 per acre.

population characteristics in Indiana. We selected heavily populated counties (urban counties) with significant commercial and industrial property, counties with a solid residential base (suburban counties), as well as those where farming is the major business activity (rural counties). These specific counties were chosen as they comprise a significant percentage of Indiana's population, are geographically diverse and their sales disclosure data is readily available from the State Tax Board's database. Finally, given the lack of commercial, industrial, and utility sales, our ratio study focused exclusively on residential property. Our initial study counties are illustrated in **Figure 8**.

As some of these counties were included in the Market Value Study, it is possible to compare data and results in those counties. Given the time difference between studies and use of different valuation techniques (sales comparison and allocation methods), one must avoid drawing specific inferences. Naturally, each area has unique features defying comparison, and those aspects may change over time.

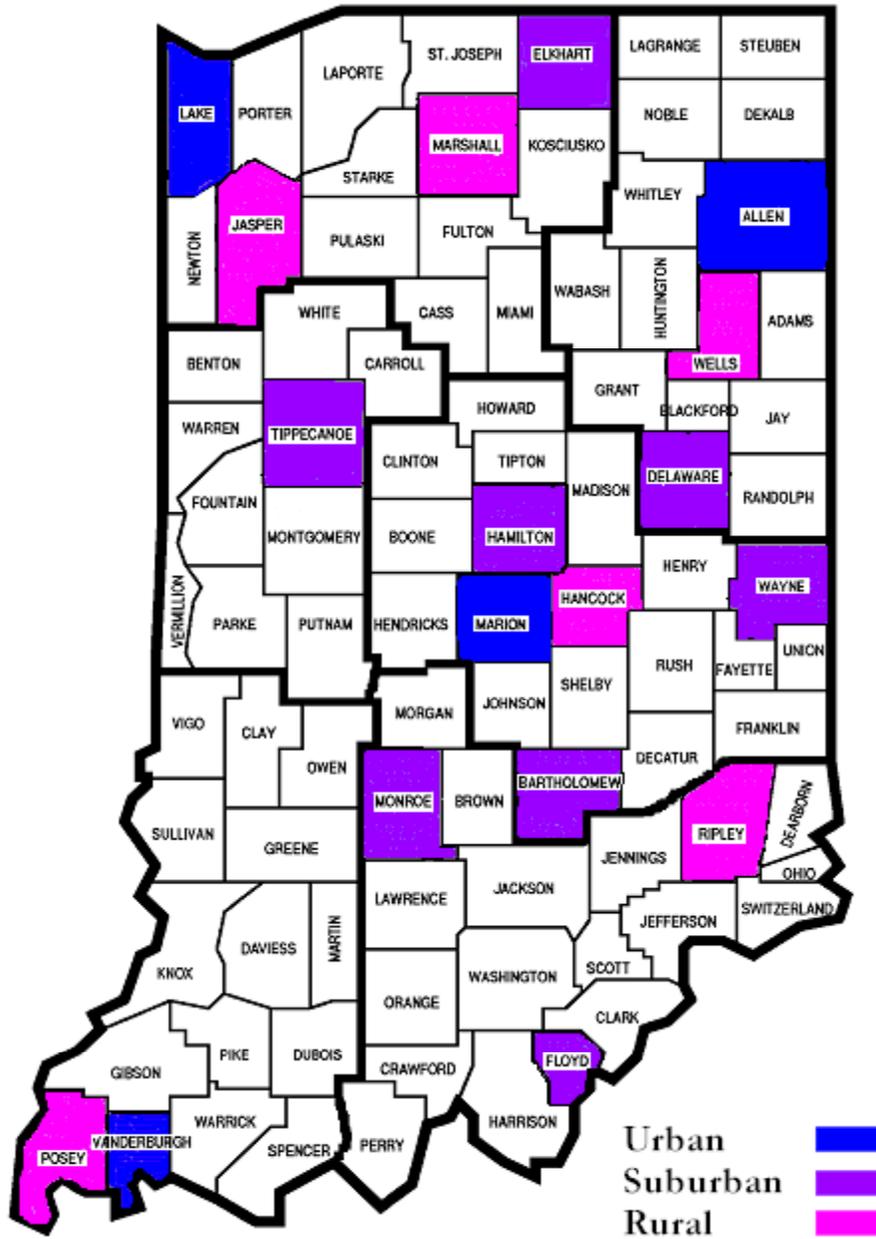
Study Methodology

The methodology used to determine value does differ from that used in the Market Value Study. Given the numerous and readily available data on sales of improved residential parcels, we used an allocation method to approximate the market value of the land. Based on discussions with realtors throughout the state, eighteen percent (18%) of the total sales price was allocated to the land component. This method provides a significantly larger sample size than was used in the Market Value Study, but of a different type as that research used a sales comparison method.

Two potential criticisms of the allocation method involve the percentage allocation and its constancy across counties. As we expect to find under-assessment of land, our intent is to be conservative. If land is indeed under-assessed, allocating a higher percentage to the land portion of value will exacerbate the finding. These comments also hold true for varying the percentage across counties. We have some data to indicate that this percentage should indeed be higher in some particular sample counties. But rather than focus on the degree of under-assessment and specifically calculate it, our desire is to illustrate and document the problem of land assessment in Indiana.

One obstacle in our study data was that residential sales in 1999 and 2000 were being compared to those values established in the 1995 general reassessment. As discussed, the 1995 assessment values were based on 1991 values. To account for the timing difference, inflation and general increases in value, fifteen percent (15%) was deducted from the sales price of all sales in all counties. Again, specific county-level differences make this broad adjustment procedure less accurate, but our focus is to demonstrate a broad, general under-assessment of land.

Figure 8
Land Assessment Ratio Study Sample Counties



Study Findings

In almost all (13 of the 15) sample counties, we observe residential land assessments significantly less than market values (see **Table 3**). The overall median level of assessment is less than 50% of estimated market value. Under-assessment of land does not appear to depend on geography as northern, central and southern counties have similar statistics. For a more comprehensive review of the underlying, statistical findings of this study, see **Appendix C**.

**Table 3: Residential Land True Tax Values v. Market Values
Lincoln Institute of Land Policy Study v. Indiana Market Value Study**

| County | Land Multipliers | | TTV % of 1991 Market Values | | |
|---------------|------------------|--------------------|-----------------------------|------------|------------|
| | Lincoln Study | Market Value Study | Urban | Suburban | Rural |
| Allen | 1.53 | - | 65% | | |
| Lake | 2.87 | 8.70 | 35% | | |
| Marion | 1.38 | 1.52 | 73% | | |
| Vanderburgh | 2.53 | 2.52 | 39% | | |
| Bartholomew | 1.62 | - | | 62% | |
| Delaware | 2.26 | - | | 44% | |
| Elkhart | 1.98 | - | | 50% | |
| Floyd | 2.08 | 4.10 | | 48% | |
| Hamilton | 0.99 | 15.10 | | 101% | |
| Monroe | 1.79 | 13.46 | | 56% | |
| Tippecanoe | 1.04 | - | | 96% | |
| Wayne | 3.12 | - | | 32% | |
| Hancock | 2.39 | 1.97 | | | 42% |
| Jasper | 1.96 | 2.50 | | | 51% |
| Marshall | 2.24 | 1.90 | | | 45% |
| Posey | 2.04 | 3.25 | | | 49% |
| Ripley | 2.31 | 5.00 | | | 43% |
| Wells | 3.03 | 5.38 | | | 33% |
| Median | 2.06 | 3.68 | 52% | 53% | 44% |

Source: State Board of Tax Commissioners

In comparison with the Market Value Study, we found comparatively less under-assessment of residential land. These differences are attributed to: the inclusion of land in transition in the Market Value Study, the greater sample size in our data, and the difference in methods between the studies used to measure value.

Several circumstances interplay in the counties. Among these: access to accurate information, willingness to use information, local attitude toward property taxes, perceived affluence of the county, etc. State oversight has been very weak in the past, and the newly adopted procedures virtually exclude the State Tax Board from the process. Yet, due to Indiana's strict use of the property tax as a locally generated and spent tax, the lack of burden transfer between counties allows the problem to persist. This situation is typically unnoticed as local circumstances differ in each case. Policymakers never sense a groundswell of common opinion to alter any specific procedure, as this would impact various locales in different ways.

Urban Counties

All sample counties exhibit data suggesting land assessments well under market value. Assessment to market value ratios range from 0.35 to 0.73, a variability factor of about two. An interesting note is that the value for Lake County, located in the northwest corner of the state, is similar to Vanderburgh County, located in the southwest corner of the state. Lake County has long been the subject of inquiry as to their property assessment techniques. In fact, the State Tax Board independently measured the level of assessment there, finding most properties under-assessed to varying degrees.²⁵ That study did not attempt to value land, only improvements. Yet, Vanderburgh County utilizes a great deal of technology in forming their assessment and is the only county with assessment information available on-line. So it does not seem that more accurate assessments are a by-product of available information. More likely, the difference is the willingness to use available information.

Suburban Counties

These counties produced the greatest variation and widest disparity between land assessments and market values. Ratios range from thirty-two percent (32%) of market to full market value. The most accurate values were found in Hamilton County, an upscale suburb of Indianapolis which is perhaps the most technologically advanced county in the state. Our data indicates a much greater degree of variation for these types of counties. To interpret this requires more data as well as an understanding of the local political landscape.

Conversations with county assessors in these suburban counties reveal some reasons why land assessments fall so far short of market value. When the local assessor arrives at initially suggested land values, a public hearing must take place. Based on the public comments, often pointed at re-election possibilities, the assessor often modifies the land order by varying degrees among property classes prior to its adoption. Consequently, the

²⁵ State Board of Tax Commissioners, *An Analysis of Assessment Practices in Lake County, Indiana*.

local populace is often allowed to affect the level of land assessments. This clearly shifts the tax burden to other forms of property, i.e. improvements and personal property.

Rural Counties

The most consistently assessed counties were found in the rural areas of the state, ranging from thirty-three percent (33%) to forty-nine percent (49%). The variability factor of only 1.5 indicates that assessment practices in rural counties are more harmonious than other county types.

An influential factor in the assessment level of residential property may be the aforementioned assessed value of farmland. The common, statewide, assessed value of \$495 per acre is approximately twenty-five percent (25%) of the statewide average market value. By definition, rural counties have a much greater percentage of total land as farmland. In these counties, land comprises a higher share of the assessed value since improvements are less significant and there is little personal property.

As farmland has been assessed by the state at about twenty-five percent (25%) of its market value, local assessors may implicitly be applying a similar assessment level to residential land. Regardless of the rationale, we observe much more consistency between rural counties in terms of assessment value to market value for land. Our data also indicates that as a group, rural counties are furthest away from assessing residential land at market value.

Summary of Study Findings

Our analysis is that disparate assessment to value percentages between counties, even neighboring ones contributes to taxpayer confusion on the issue of land assessments. Despite regulations tying land assessment to market value, the data indicates this it is often the assessments themselves that are similar from county to county. In other words, counties place similar assessments on similar types of residential land, much as the State Tax Board places the same assessment on farmland statewide. This of course runs contrary to the varying market values in and between counties. More technically, local assessors are establishing similar acreage, lot or front foot prices in comparison with their counterparts in other counties.

Counties do share data and information on assessments and county assessors can freely review other county land assessments. But rather than using such data to produce more accurate assessments, assessors appear to be using such data to set vastly similar assessments. To confirm this supposition, expanding the study to the remaining seventy-four (74) counties will allow us to test whether neighboring counties simply set similar assessment techniques (such as similar acreage or front foot rates), instead of actually determining any market value. This would also entail a comparison of county and township land orders. Whatever variation does exist in the rates and methods used by assessors is clearly not reflecting actual differences in market value.

Resultant Tax Burden Shifts

Based on the data, we must conclude that residential land in Indiana is under-assessed by at least fifty percent (50%). If this summary finding is applied to the residential property class statewide, there can be significant tax burden shifts. Indiana has virtually no state property tax, thus there are few inter-county tax burden shifts. Minor inter-county burden transfers could occur in the few instances where tax districts overlap county boundaries and land assessment practices vary widely between those counties. Assuming all land is equally under-assessed for all property classes, the tax burden shifts, in most cases, will occur within counties and between property classes. Generally, business taxpayers incur higher tax burden shifts with the under-assessment of land, as the state relies heavily on the business personal property tax.

Urban Counties

By under-assessing land, taxes are shifted away from residential owners to the various business classes, by means of the personal property tax. Personal property becomes a higher percentage of the assessed value in the tax district, increasing its share of the burden. Proper assessment of land would more equitably redistribute this burden. Tax burden shifts due to underassessment of land is most problematic in urban counties.

Suburban Counties

In the few counties with appropriate land assessments, no undue tax burden shift occurs. In counties with significant under-assessment of land, there is once again some tax burden shift to the commercial property class. This effect is not as significant given the relatively higher share of residential assessed value and the relatively lower share of the business class in such counties.

Rural Counties

In most rural counties, under-assessment of land is rather benign, given the absence of significant commercial or industrial property. However, several rural counties in Indiana have significant utility property, especially generating facilities and transmission and distribution property. Given that information, the resulting tax shifts are clear. Underassessment of land shifts as significant share of the tax burden to utility property in those counties where generating facility exists. The size of the burden shift can be quite large, as the real and personal property of such generating facilities is significant.

Observations and Comments

Highly variable and below market value assessments on land not only fly in face of Indiana law, but create an inequitable property tax system. As the current “true tax value” procedure of assessing improvements has been declared unconstitutional, this de facto and arbitrary land classification system is equally as onerous.

Based on the data reported and analyzed here, land assessments statewide are on average about one-half the legal level. If residential land were to be properly valued in the

upcoming general reassessment, land assessments would have to increase by a factor of 2.5.

Unfortunately, this tremendous increase in land assessments will be challenging for several reasons. Given the political nature of the current assessment process, where local assessors feel direct pressure from local voters, they may not even attempt such large changes to land assessments. Land assessments with the upcoming reassessment will be established at the township level, by 1,008 township assessors. It is highly likely that more, untrained, part-time township assessors can produce land assessments that reflect the market. Finally, state oversight of the land valuation process has been essentially eliminated. As there has been minimal state oversight in the past, the threat of state intervention early in the valuation process has been eliminated.

Underassessment of land skews the composition of the tax base. As our preliminary data indicates that other classes of land are as under-assessed as residential land, land should comprise at least thirty percent (30%) of the total statewide assessed value, far more than its current eighteen percent (18%) share. As illustrated below in **Table 4**, the impact on other property types is significant. This is true with improvements and personal property as both shares decrease by fifteen percent (15%). Though business personal property taxpayers would certainly benefit with better land values, the overall business property tax burden would not decrease by an equal amount, as business land is also under-assessed.

**Table 4: Change in Tax Base Resulting from Accurate Land Assessments
Current v. New Shares of Improvements, Personal Property & Land**

| | Current Share | New Share | Inc. (Dec.) |
|--------------------------|----------------------|------------------|--------------------|
| Improvements | 55% | 47% | (15%) |
| Land | 18% | 30% | 67% |
| Personal Property | 27% | 23% | (15%) |

Land Valuation Challenges and Issues in Indiana

There are several reasons for such poor current land values, particularly residential and agricultural land, in Indiana. From something as simple as the lack of access to market data to the complex and unique nature of the state’s administrative structure, a comprehensive overhaul of Indiana’s land valuation methods and procedures is greatly needed. Given the fact that land values are further from the market than are improvements and personal property, policymakers should consider the following issues as part of any attempt to cure the current land valuation problems.

Data Issues

Some local assessors have a very good excuse for the under-assessment of current land values: limited access to market value data. Though created in 1993, sales disclosure forms were not available to local assessors in 1991, the base year for current land values, as the form was initially designed to study the impact of moving to a market based assessment system.

This access problem would be especially true in rural counties, as other sources of market data are not available. Further, relatively few residential, let alone vacant land sales, occur. As **Table 3** shows (see page 25), rural county land values were on average further from the market than urban and suburban counties. In urban and suburban counties, however, a significant amount of market data would have been available when current land values were established. Again, a licensed realtor or broker was a member of the county land valuation boards that established current nonagricultural land values.

With readily available market data, local assessors who have little or no experience with sales disclosure forms must be given guidance and training on land valuation. From editing to identifying “non-arm’s-length” transactions to verifying the information provided on sales disclosure forms, serious attention must be given to this issue.

State Oversight Issues

Second, weak state oversight has also contributed to the current land valuation problems in at least two ways. First, despite the requirement of the State Tax Board to modify local land orders to promote uniform and equitable assessments, minimal effort was made to do so. Granted, the state had not better market data than local assessors did in rural counties, but it had substantial market data in rural and suburban counties. As it turned out, the state was selective and politically astute in what few modifications it made to land values.

Second, though the State Tax Board was not required to equalize real property assessments at the time the current land values were established, Indiana law did give it the authority to do so. Since the 1995 reassessment, no equalization authority has been exercised by the state to provide for equal, uniform, and just assessments. While the State Supreme Court ruling in 1998 deterred any subsequent action, it is doubtful that the state would have made any efforts to equalize real property assessments.

Training and Certification Issues

Historically, assessor training in Indiana has primarily emphasized the application of the state’s real estate manuals. Just as it has been lost in the current assessment reform debate, land valuation has also been ignored from a training perspective. The inclusion of realtors, brokers, and bankers on county land valuation boards certainly added insight into the process, yet there were no substantive qualifications to serve on a land board, or training opportunities for its members.

The training issue only becomes more significant with the upcoming reassessment with 1,008 township assessors assuming the land valuation responsibility. As more training will be required on the application of the a new real property assessment manual, the state's ability to properly train local assessors on proper land valuation techniques is questionable.

Political Issues

From the election of township assessors to the appointment of commissioners at the State Tax Board, the state's entire assessment system is entrenched in politics. At the local level, assessors are required to hold local public hearings when establishing land values. As local assessors are quick to admit, establishing accurate land assessments is political suicide. When it comes to land valuation in Indiana, permitting the rule of many over the rule of the law weakens the state's tax and assessment systems. As previously discussed, it also results in the inequitable distribution of the property tax burden.

At the state level, policymakers have been excessively myopic by being preoccupied with tax burden shifts resulting from a market-derived assessment system. Rather than addressing the problem of poor land assessments, among the many other assessment problems, policy makers have chosen to politicize the judicial mandate for an equitable assessment system. If state officials view assessment reform only as a cost without corresponding benefit, it is highly unlikely that the much needed reform will arise in the near future.

Conclusion

As the assessment and political systems are entangled in Indiana, it comes as no surprise that the mitigation of tax shifts has taken precedence over the creation of an equitable and uniform assessment system. Lost in the ongoing debate over "acceptable" tax shifts are a number of issues, including poor land values, that have contributed to the inequities that have plagued the state's assessment system. Given the extent of the assessment challenges confronting the state, no one issue, alone, will provide for a uniform, equal, and just assessment system. In no particular order, these challenges and issues include:

1. New Assessment Manuals: Clearly, the development of market-derived real and personal assessment manuals is a major step toward a more equitable assessment system in Indiana. Policy makers, however, must resist any temptation to use the assessment manuals as a mechanism to mitigate the inevitable tax burden shifts that will result under such a system. Look no further than the current assessment manuals for evidence of the problems that result from such an approach.
2. Court Intervention: One must consider how the judicial branch will react if the forthcoming assessment manuals are deficient, untimely, or fail to use objectively verifiable data. As the State Tax Court has become increasingly assertive over the past few months, one should expect further involvement if the State Tax Board fails in any of these three areas. Of course, from a lawmaker's perspective, this may be a "win-

win” situation, as the court could be blamed for the tax burden shifts that are sure to accompany an equitable assessment system.

3. Equity & Uniformity: To date, the fiscal impact of assessment reform has largely been limited to the analysis of interclass tax shifts at the county level. Of course, assessment reform will produce dramatic tax shifts both within property classes and counties. These types of shifts, however, have been discussed only as they relate to residential property. Current data indicates that equally significant shifts will occur within other property classes, especially business property.
4. Administrative Structure: Both at the state and local levels, assessment reform must include the restructuring of the assessment system’s administrative structure. It obviously has not produced equity, nor should it be expected to with the implementation of far more technical valuation methods. At the local level, policy makers need to streamline the roles of local assessors by identifying alternative assessment jurisdictions. It is more likely that fewer, better trained and paid full-time assessors will produce better assessments. At the state level, the restructuring of the State Tax Board could help insulate it from the political consequences of its oversight function. Perhaps a bi-partisan legislative body should appoint the commissioners from a list of qualified and certified tax and assessment specialists. Political affiliation should play as little, if any, role to promote impartial, objective oversight of the state’s assessment system.
5. Equalization: Outside of poor land values, the most overlooked aspect of assessment reform is the adoption and enforcement of strict equalization standards. In fact, it may be the most critical component of Indiana’s assessment reform efforts. Though significantly more equity could exist under the current, true tax value system had the state been equalizing land and improvement assessments, equalization could not cure the underlying problems with the state’s cost and depreciation schedules. When used correctly in a market-derived assessment system, however, equalization is the most effective means of ensuring taxpayer equity. Finally, with the upcoming reassessment, policy makers should amend the equalization process established by the 1997 Indiana General Assembly. Equalization should commence immediately following the effective date of reassessment, not two years after reassessment, as provided under current law.
6. Assessor Training & Certification: Lawmakers and the State Tax Board should take further steps to increase the level of assessor training and expand assessor qualification requirements. As **Table 2** demonstrated (see page 8), most part-time assessors are not certified. To ensure a well-trained assessment community, policy makers should consider pre- and/or post election qualifications and the appointment of qualified assessors by the county executive. These alternatives may not be politically acceptable, especially among township assessors, but the timing of such efforts could not be better. Finally, policy makers should also expand the training and certification requirements of private appraisal firms, given the significant role they play in the state’s assessment system.
7. Market Data: To date, too little attention has been given to the use of sales disclosure forms in establishing land values and developing market depreciation tables at the local

level. Given the reporting problems encountered both in the Market Value Study and our research on land values, editing and verifying the information provided on such forms becomes critical. The use of poor data and “non-arm’s-length” transactions will not produce equitable assessments.

8. Assessment Cycle: Even under current law, Indiana’s current four-year cycle is too long. Nearly all modern assessment literature cites a short reassessment cycle as a means of achieving equity. As personal property is revalued annually, the current cycle allows the tax burden to be shifted away from real estate. This undue shift would be minimized with more frequent reassessments or annual updating of real property values.
9. Taxpayer Education: The highly politicized debate over assessment reform has confused taxpayers in all property classes. A series of educational workshops around the state would provide taxpayers the opportunity to become educated on property tax issues in general, but reassessment specifically.
10. Land Values: Indiana land assessments have been and continue to be well below market value. As the data suggests that all land is under-assessed by at least fifty percent (50%), the tax burden shift, in most cases, will occur within counties and within and between property classes. Indiana businesses incur higher tax burden shifts with this problem, as the state relies heavily on business personal property taxes. This underlying problem must be rectified through assessor training, more diligent state oversight, and implementation of the equalization process.

Given the breadth of issues that need to accompany the state’s reform efforts, an overhaul of the assessment system will truly be a challenge. Rather than mitigating tax burden shifts on the front-end of the process, however, policy makers should first focus on those underlying areas that have contributed to the inequities that have plagued the assessment system for several years. One way or another, policy makers and property taxpayers in Indiana need to realize that equity often comes with a price.

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Appendix A
Full-Time & Part-Time Township Assessors, by County
State of Indiana, 1999

| County | # of Full-Time Assessors | # of Part-Time Assessors | Total Township Assessors |
|---------------|---------------------------------|---------------------------------|---------------------------------|
| Adams | 3 | 9 | 12 |
| Allen | 7 | 13 | 20 |
| Bartholomew | 1 | 11 | 12 |
| Benton | 0 | 11 | 11 |
| Blackford | 1 | 3 | 4 |
| Boone | 2 | 10 | 12 |
| Brown | 0 | 4 | 4 |
| Carroll | 0 | 14 | 14 |
| Cass | 1 | 13 | 14 |
| Clark | 3 | 9 | 12 |
| Clay | 1 | 10 | 11 |
| Clinton | 1 | 13 | 14 |
| Crawford | 0 | 9 | 9 |
| Daviess | 1 | 9 | 10 |
| Dearborn | 2 | 12 | 14 |
| Decatur | 1 | 7 | 8 |
| Dekalb | 2 | 13 | 15 |
| Delaware | 4 | 8 | 12 |
| Dubois | 2 | 10 | 12 |
| Elkhart | 5 | 11 | 16 |
| Fayette | 2 | 7 | 9 |
| Floyd | 1 | 4 | 5 |
| Fountain | 0 | 11 | 11 |
| Franklin | 0 | 13 | 13 |
| Fulton | 1 | 7 | 8 |
| Gibson | 1 | 9 | 10 |
| Grant | 6 | 7 | 13 |
| Greene | 1 | 14 | 15 |
| Hamilton | 6 | 3 | 9 |
| Hancock | 3 | 6 | 9 |
| Harrison | 1 | 11 | 12 |
| Hendricks | 4 | 8 | 12 |
| Henry | 1 | 13 | 14 |
| Howard | 3 | 8 | 11 |
| Huntington | 1 | 11 | 12 |
| Jackson | 1 | 11 | 12 |
| Jasper | 2 | 11 | 13 |
| Jay | 2 | 10 | 12 |
| Jefferson | 1 | 9 | 10 |
| Jennings | 1 | 10 | 11 |
| Johnson | 4 | 5 | 9 |
| Knox | 2 | 8 | 10 |
| Kosciusko | 4 | 13 | 17 |
| Lagrange | 0 | 11 | 11 |
| Lake | 8 | 3 | 11 |
| Laporte | 3 | 18 | 21 |
| Lawrence | 2 | 7 | 9 |
| Madison | 6 | 8 | 14 |

Appendix A (continued)

| County | # of Full-Time Assessors | # of Part-Time Assessors | Total Township Assessors |
|--------------|--------------------------|--------------------------|--------------------------|
| Marion | 0 | 9 | 9 |
| Marshall | 2 | 8 | 10 |
| Martin | 1 | 5 | 6 |
| Miami | 2 | 12 | 14 |
| Monroe | 4 | 7 | 11 |
| Montgomery | 1 | 10 | 11 |
| Morgan | 2 | 12 | 14 |
| Newton | 0 | 10 | 10 |
| Noble | 1 | 12 | 13 |
| Ohio | 0 | 4 | 4 |
| Orange | 0 | 10 | 10 |
| Owen | 0 | 13 | 13 |
| Parke | 0 | 13 | 13 |
| Perry | 1 | 6 | 7 |
| Pike | 0 | 9 | 9 |
| Porter | 6 | 6 | 12 |
| Posey | 1 | 9 | 10 |
| Pulaski | 0 | 12 | 12 |
| Putnam | 1 | 12 | 13 |
| Randolph | 2 | 9 | 11 |
| Ripley | 0 | 11 | 11 |
| Rush | 1 | 11 | 12 |
| St Joseph | 6 | 7 | 13 |
| Scott | 2 | 3 | 5 |
| Shelby | 1 | 13 | 14 |
| Spencer | 0 | 9 | 9 |
| Starke | 1 | 8 | 9 |
| Steuben | 1 | 11 | 12 |
| Sullivan | 1 | 8 | 9 |
| Switzerland | 0 | 6 | 6 |
| Tippecanoe | 3 | 10 | 13 |
| Tipton | 1 | 5 | 6 |
| Union | 0 | 6 | 6 |
| Vanderburgh | 5 | 3 | 8 |
| Vermillion | 1 | 4 | 5 |
| Vigo | 5 | 7 | 12 |
| Wabash | 2 | 5 | 7 |
| Warren | 0 | 12 | 12 |
| Warrick | 2 | 8 | 10 |
| Washington | 1 | 12 | 13 |
| Wayne | 3 | 12 | 15 |
| Wells | 1 | 8 | 9 |
| White | 1 | 11 | 12 |
| Whitley | 1 | 8 | 9 |
| Total | 167 | 841 | 1,008 |

Source: State Board of Tax Commissioners, 1999 Assessors' Conference Directory.

Appendix B Continuing Education Requirements, State of Indiana

Level I Assessor-Appraisers

| Group One: Received Level I prior to December 31, 1998 | <u>Total Hours</u> | <u>Tested Hours</u> |
|------------------------------------------------------------------|---------------------------|----------------------------|
| Cycle #1: January 1, 1999 - December 31, 2000 | 30 | 6 |
| Cycle #2: January 1, 2001 - December 31, 2002 | 30 | 6 |
| Cycle #3: January 1, 2003 - December 31, 2004 | 30 | 12 |
| Cycle #4: January 1, 2005 and thereafter | 30 | 15 |
| | | |
| Group Two: Receive Level I between Jan. 1-Dec. 31, 1999 | <u>Total Hours</u> | <u>Tested Hours</u> |
| Cycle #1: January 1, 2000 - December 31, 2001 | 30 | 6 |
| Cycle #2: January 1, 2002 - December 31, 2003 | 30 | 6 |
| Cycle #3: January 1, 2004 - December 31, 2005 | 30 | 12 |
| Cycle #4: January 1, 2006 and thereafter | 30 | 15 |
| | | |
| Group Three: Receive Level I between Jan. 1-Dec. 31, 2000 | <u>Total Hours</u> | <u>Tested Hours</u> |
| Cycle #1: January 1, 2001 - December 31, 2002 | 30 | 6 |
| Cycle #2: January 1, 2003 - December 31, 2004 | 30 | 12 |
| Cycle #3: January 1, 2005 and thereafter | 30 | 15 |

Level II Assessor-Appraisers

| Group One: Received Level II prior to December 31, 1998 | <u>Total Hours</u> | <u>Tested Hours</u> |
|-------------------------------------------------------------------|---------------------------|----------------------------|
| Cycle #1: January 1, 1999 - December 31, 2000 | 45 | 12 |
| Cycle #2: January 1, 2001 - December 31, 2002 | 45 | 12 |
| Cycle #3: January 1, 2003 - December 31, 2004 | 45 | 18 |
| Cycle #4: January 1, 2005 and thereafter | 45 | 22 |
| | | |
| Group Two: Receive Level II between Jan. 1-Dec. 31, 1999 | <u>Total Hours</u> | <u>Tested Hours</u> |
| Cycle #1: January 1, 2000 - December 31, 2001 | 45 | 12 |
| Cycle #2: January 1, 2002 - December 31, 2003 | 45 | 12 |
| Cycle #3: January 1, 2004 - December 31, 2005 | 45 | 18 |
| Cycle #4: January 1, 2006 and thereafter | 45 | 22 |
| | | |
| Group Three: Receive Level II between Jan. 1-Dec. 31, 2000 | <u>Total Hours</u> | <u>Tested Hours</u> |
| Cycle #1: January 1, 2001 - December 31, 2002 | 45 | 12 |
| Cycle #2: January 1, 2003 - December 31, 2004 | 45 | 18 |
| Cycle #3: January 1, 2005 and thereafter | 45 | 22 |

Source: State Board of Tax Commissioners.

Appendix C Summary Statistics, Sample Counties

Allen County (2,602 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 10,266 | 44,772 | 55,085 | 98,586 |
| Median | 8,310 | 36,090 | 44,700 | 83,900 |
| 10th Percentile | 2,490 | 13,710 | 16,818 | 35,580 |
| 90th Percentile | 16,590 | 84,510 | 100,404 | 167,000 |
| Stdev. | 22,435 | 34,614 | 45,776 | 71,805 |

Bartholomew County (880 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 14,592 | 50,440 | 65,247 | 119,064 |
| Median | 9,690 | 44,145 | 56,100 | 102,750 |
| 10th Percentile | 3,900 | 17,100 | 22,764 | 53,965 |
| 90th Percentile | 24,273 | 90,273 | 115,947 | 209,630 |
| Stdev. | 31,264 | 35,106 | 51,370 | 78,494 |

Delaware County (109 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 5,655 | 33,433 | 39,088 | 76,348 |
| Median | 4,290 | 23,400 | 27,390 | 63,500 |
| 10th Percentile | 1,410 | 8,850 | 10,734 | 20,780 |
| 90th Percentile | 9,606 | 72,810 | 80,352 | 155,000 |
| Stdev. | 5,117 | 28,767 | 32,223 | 59,601 |

Elkhart County (929 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 8,130 | 46,097 | 54,219 | 105,693 |
| Median | 7,110 | 41,010 | 49,110 | 92,000 |
| 10th Percentile | 2,910 | 13,986 | 17,400 | 55,000 |
| 90th Percentile | 13,842 | 80,520 | 92,670 | 153,221 |
| Stdev. | 7,148 | 30,574 | 34,898 | 96,967 |

Floyd County (449 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 8,525 | 49,814 | 58,346 | 113,220 |
| Median | 7,200 | 42,390 | 48,990 | 98,000 |
| 10th Percentile | 3,510 | 16,986 | 21,600 | 58,960 |
| 90th Percentile | 15,090 | 91,974 | 106,284 | 175,300 |
| Stdev. | 6,012 | 31,744 | 36,289 | 69,238 |

Appendix C (continued)**Hamilton County (1,558 Sales)**

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 27,909 | 83,753 | 111,661 | 197,215 |
| Median | 24,000 | 70,410 | 94,200 | 156,150 |
| 10th Percentile | 10,800 | 32,520 | 45,090 | 99,468 |
| 90th Percentile | 46,926 | 140,100 | 188,250 | 325,000 |
| Stdev. | 21,873 | 69,255 | 82,954 | 160,995 |

Hancock County (195 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 8,334 | 52,867 | 61,201 | 127,289 |
| Median | 7,590 | 50,190 | 57,090 | 118,372 |
| 10th Percentile | 3,336 | 18,084 | 22,104 | 67,200 |
| 90th Percentile | 12,954 | 92,022 | 108,744 | 195,760 |
| Stdev. | 5,158 | 27,960 | 31,714 | 52,515 |

Jasper County (161 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 8,604 | 45,827 | 54,447 | 97,662 |
| Median | 7,590 | 41,700 | 49,500 | 97,000 |
| 10th Percentile | 4,110 | 15,690 | 21,900 | 47,000 |
| 90th Percentile | 13,410 | 71,280 | 81,990 | 155,000 |
| Stdev. | 6,065 | 46,471 | 47,776 | 42,452 |

Lake County (371 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 8,627 | 27,965 | 36,591 | 108,081 |
| Median | 5,190 | 19,590 | 27,600 | 97,500 |
| 10th Percentile | 2,010 | 8,010 | 10,680 | 53,000 |
| 90th Percentile | 19,800 | 58,200 | 69,900 | 172,000 |
| Stdev. | 8,187 | 22,413 | 28,252 | 54,677 |

Marion County (6,092 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 11,998 | 41,576 | 53,378 | 99,195 |
| Median | 9,690 | 33,990 | 43,710 | 87,000 |
| 10th Percentile | 2,400 | 13,200 | 17,010 | 32,000 |
| 90th Percentile | 21,990 | 74,991 | 95,217 | 159,900 |
| Stdev. | 11,897 | 36,415 | 45,161 | 82,593 |

Marshall County (229 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 6,516 | 40,090 | 46,606 | 93,352 |
| Median | 5,400 | 32,700 | 38,280 | 79,000 |
| 10th Percentile | 3,000 | 14,886 | 18,684 | 44,829 |
| 90th Percentile | 10,314 | 72,102 | 81,402 | 140,200 |
| Stdev. | 6,416 | 28,512 | 32,049 | 90,935 |

Appendix C (continued)

Monroe County (705 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 11,057 | 52,958 | 64,015 | 125,918 |
| Median | 9,390 | 46,155 | 55,545 | 110,000 |
| 10th Percentile | 4,800 | 19,950 | 24,750 | 67,000 |
| 90th Percentile | 20,010 | 95,340 | 115,350 | 203,000 |
| Stdev. | 6,382 | 34,817 | 41,198 | 77,799 |

Posey County (154 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 6,148 | 43,574 | 49,722 | 84,747 |
| Median | 5,910 | 45,000 | 52,335 | 78,750 |
| 10th Percentile | 2,190 | 14,370 | 17,781 | 32,300 |
| 90th Percentile | 10,410 | 70,863 | 80,106 | 135,556 |
| Stdev. | 3,597 | 24,833 | 27,386 | 42,591 |

Ripley County (111 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 5,871 | 36,760 | 42,631 | 92,159 |
| Median | 5,100 | 28,200 | 34,980 | 77,000 |
| 10th Percentile | 2,310 | 10,890 | 15,510 | 27,500 |
| 90th Percentile | 10,110 | 73,410 | 81,510 | 163,700 |
| Stdev. | 3,710 | 27,726 | 30,087 | 69,460 |

Tippecanoe County (210 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 16,852 | 40,728 | 57,580 | 110,250 |
| Median | 14,610 | 34,650 | 51,570 | 99,250 |
| 10th Percentile | 7,791 | 14,790 | 23,931 | 59,990 |
| 90th Percentile | 32,211 | 70,782 | 101,748 | 175,200 |
| Stdev. | 9,103 | 26,519 | 33,226 | 52,496 |

Vanderburgh County (809 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 5,298 | 35,421 | 40,814 | 92,138 |
| Median | 4,590 | 25,500 | 30,390 | 75,900 |
| 10th Percentile | 1,500 | 9,210 | 11,400 | 35,000 |
| 90th Percentile | 9,510 | 74,028 | 83,496 | 158,600 |
| Stdev. | 3,771 | 34,926 | 37,768 | 69,695 |

Wayne County (186 Sales)

| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
|-----------------|-----------------|--------------------|------------------|--------------------|
| Mean | 4,372 | 32,203 | 36,575 | 76,528 |
| Median | 3,360 | 27,150 | 30,690 | 68,500 |
| 10th Percentile | 1,350 | 12,090 | 13,845 | 32,750 |
| 90th Percentile | 8,610 | 62,700 | 69,000 | 126,250 |
| Stdev. | 3,219 | 21,384 | 23,733 | 46,351 |

Appendix C (continued)

| Wells County (66 Sales) | | | | |
|--------------------------------|-----------------|--------------------|------------------|--------------------|
| | <u>Land TTV</u> | <u>Improv. TTV</u> | <u>Total TTV</u> | <u>Sales Price</u> |
| Mean | 5,528 | 46,045 | 51,573 | 99,432 |
| Median | 4,545 | 40,245 | 46,995 | 89,900 |
| 10th Percentile | 2,205 | 20,295 | 22,140 | 53,500 |
| 90th Percentile | 10,050 | 76,350 | 83,700 | 163,500 |
| Stdev. | 3,122 | 24,485 | 26,287 | 42,692 |

Source: State Board of Tax Commissioners.